

# Daily Lesson Planner

These instructional materials are designed for use in the 4<sup>th</sup> through 8<sup>th</sup> grade classroom. They are cross-curricular so that a self-contained classroom teacher can immerse their students in the Female Frontiers shuttle mission experience. The teacher is encouraged to preview the Web site “Female Frontiers” daily during the mission as Web chat opportunities and new online activities will be made available.

This Suggested Daily Lesson Planner is designed to meet the needs of the busy educator. If a teacher would make full use of all the instructional materials contained on this Web site, one would have a solid two-week, cross-curricular experience. The lesson planner is divided into 10 days with each day divided into the core subject areas (Language Arts, Mathematics, Science, Social Studies). Feel free to substitute or re-arrange the order for optimal classroom benefit.

## Day 1

### Language Arts

- Choose 2 of the “Into” activities from the literature unit “Thrilling a Nation”.

### Mathematics

- Carry That Weight Session 1

### Science

- Have students visit the **Female Frontiers** Web site at <http://quest.arc.nasa.gov/space/frontiers> for an introductory scavenger hunt. Place the students in pairs and give them each a “Web Site Scavenger Hunt” activity sheet of the items to find on the Web site. The first two questions are answered off the Web site’s opening page. After answering the first two questions, next direct the students to click on “Instructional Materials” and then to “Shuttle Aeronautics”. From here the students can survey the following sub-sections:
  - Space Shuttle Fact Sheet
  - The Space Shuttle Parts Vocabulary List
  - Reading: “The Shuttle is a Lifting Body”
  - The Shuttle at Work

Remind the students that they are not to engage in the activities or thoroughly read each sub-section, but to simply survey this part of the Web site and bring back specific information on their “Science Scavenger Hunt” activity sheet.

### **Social Studies\***

- Have the students access the “Woman’s Work” chart from the Web site (at <http://quest.arc.nasa.gov/space/frontiers/activities/womanswork/chart.html>)
  - Point out the organizational features of the chart as well as what kind of information is contained in each category. Give the students time to survey the chart before leading them in some Questions and Answers about the information as well as the implications for American society during each decade.
- \* Check the “Profiles of Frontierswomen” sub-section of the Web site for dates and times of interactive chats and Web casts to enliven your social studies’ time throughout the two week period.

### **Day 2**

#### **Language Arts**

- Read aloud pages 1 – 8 from the book Ruth Law Thrills a Nation. Ask the comprehension questions (#1 - #17) as the story is read or as a comprehension check at the end of the reading.
- Review the vocabulary (#1 - #13) as the story is read.
- Engage the students in some vocabulary work culminating in the Crossword Puzzle #1

#### **Mathematics**

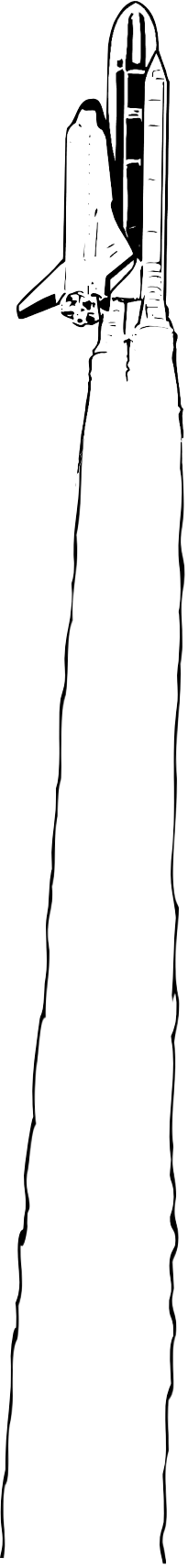
- Carry That Weight Session #2

#### **Science**

- Using the Web site, have students examine the labeled diagram of the Space Shuttle and discuss the parts and their function.
- If possible view a videotape that details the space shuttle, its parts and their functions. (Note: NASA has available many videotapes through NASA CORE, 216-774-1051).
- Then use the activity sheet “Label the Parts of the Space Shuttle” for follow-up.

#### **Social Studies**

- Divide the class into small groups and provide access to the “Woman’s Work” chart (on computer or hard copy).
- Distribute the “Group Discussion Activity” and allow time for each group to discuss and answer questions.
- Have each group share their responses.
- Then distribute “Re-define the Future of ‘Woman’s Work Group Prediction” activity sheet and have each group record their predictions.
- Conclude this activity by having each group give two predictions for each category.
- Then post the “Expert’s Key” (overhead transparency) to compare the students’ predictions to what the futurist experts say.



### Day 3

#### **Language Arts**

- Read aloud pages 9 – 18 from the book Ruth Law Thrills a Nation. Ask the comprehension questions (#18 - #24) as the story is read or as a comprehension check at the end of the reading.
- Review the vocabulary (#14 - #26) as the story is read.
- Engage the students in some vocabulary work culminating in the Crossword Puzzle #2

#### **Mathematics**

- Carry That Weight Session #3

#### **Science**

- Have students use their vocabulary list of “The Parts of the Space Shuttle” and complete the “Space Shuttle Crossword” (from the Web site <http://quest.arc.nasa.gov/space/frontiers/activities/aeronautics/vocabulary.html> or in hard copy).
- Have students complete the “Space Shuttle Dot-to-Dot” and color.

#### **Social Studies**

- Group the students in pairs and give each pair a timeline search “Name the Year”. Have them access the “Female Aviation Firsts” timeline found on the Web site at <http://quest.arc.nasa.gov/space/frontiers/activities/womanswork/firststimeline/firsts.html> or a hard copy, and perform a timeline search.
- Review the answers upon completion, or collect and assess later.
- Assign for an at-home extension activity the “Female Family Member Lifeline Activity” due Day 5.

### Day 4

#### **Language Arts**

- Read aloud pages 19 – 29 from the book Ruth Law Thrills a Nation. Ask the comprehension questions (#25 - #31) as the story is read or as a comprehension check at the end of the reading.
- Review the vocabulary words (#27 - #31) as the story is read.
- Have the students work “Crossword Puzzle #3”.

#### **Mathematics**

- Glide Slope Activity Session #1





## Science

- Read and discuss with the students the “Student Reading: Aeronautics of the Space Shuttle”

## Social Studies

- Group the students in pairs and give each pair a timeline search “Name the Woman”. Have them access the “Female Aviation Firsts” timeline found on the Web site at <http://quest.arc.nasa.gov/space/frontiers/activities/womanswork/firststimeline/firsts.html> or a hard copy, and perform a timeline search.
- Review the answers upon completion, or collect and assess later.
- Remind the students that the at-home extension activity the “Female Family Member Lifeline Activity” is due Day 5.

## Day 5

### Language Arts

- Re-read the entire story Ruth Law Thrills a Nation.
- Have students in small groups, pairs or individually work the “Plotline Activity”.

### Mathematics

- Glide Slope Activity Session #2

## Science

- Review with the students the main ideas from the “Student Reading: Aeronautics of the Space Shuttle”
- Distribute the comprehension worksheet “Student Worksheet: Aeronautics of the Space Shuttle” and have them complete this.

## Social Studies

- Have students use their information from the “Female Family Member Lifeline Activity” to help them create their own individual timelines about a female family member.

## Day 6

### Language Arts

- Have students engage in the “Through” activity “Historical Aviation Commemoration”. (Allow 2 days work Day 6 & 7)

### Mathematics

- Glide Slope Activity Session #3.

## Science

- Have students access other Web sites that depict the phases of a space shuttle mission or to review the Female Frontiers Web site segment <http://quest.arc.nasa.gov/lrc/sto/vms/vms-v.ram> that features an interview that familiarizes the learner with the flight path of a typical mission.
- Have the students complete the “Phases of a Space Shuttle Mission” activity sequence sheet.

## Social Studies

- Have students access the sub-section “Commander Collins Bio-line” from the “Commander Collins” section of the **Female Frontiers** Web site. Key in during your discussion on Commander Collins’ early goal setting (1978). Then move on to the sub-sections “Steps to Commander” and “Commander’s Duties”.
- Split the class into small groups and distribute the activity sheets for “Be a Goal Setter Group Activity”. Have students collaborate, then post and discuss their steps.
- Distribute “I’m a Weekly Goal Setter”. Have the students complete this and then give an opportunity for some to share.
- Collect these or entrust students to keep their own copies, so that they can refer to their steps daily and stay on track. The teacher will review these with the students on Day 8.

## Day 7

### Language Arts

- Have the students complete the “Through” activity “Historical Aviation Commemoration”.

### Mathematics

- Glide Slope Activity Session #4

### Science

- Everything’s Under Control Session #1

### Social Studies

- Distribute the student reading “Personal Preference Kit”. Read and discuss the reading.
- Distribute the activity sheet for “Student Personal Preference Kit” and have students complete this and give thought to what objects they could bring from home, what they could draw a picture of or clip from a magazine at school or make a facsimile of during the next school day.
- Remind students to bring a shoebox from home for tomorrow’s activity.



## Day 8

### **Language Arts**

- Have the students complete the “Beyond” activity “Comparing Aircraft”. Use the overhead transparency of “That Daring Woman in Her Flying Machine” with its specifications for a detailed transparency.

### **Mathematics**

- Glide Slope Activity Session #5

### **Science**

- Everything’s Under Control Session #2

### **Social Studies**

- Re-Distribute the student activity sheet “I’m a Weekly Goal Setter” and have students individually evaluate their progress and return they activity sheets to the teacher for final check on Day 10.
- Allow time in class for the students to assemble their “Student Personal Preference Kits”.

## Day 9

### **Language Arts**

- Have the students in small groups engage in the “Beyond” activity “Commander Collins Thrills a Nation”. (Allow 2 days for this activity Day 9 & 10)

### **Mathematics**

- Glide Slope Activity Session #6

### **Science**

- Everything’s Under Control Session #3

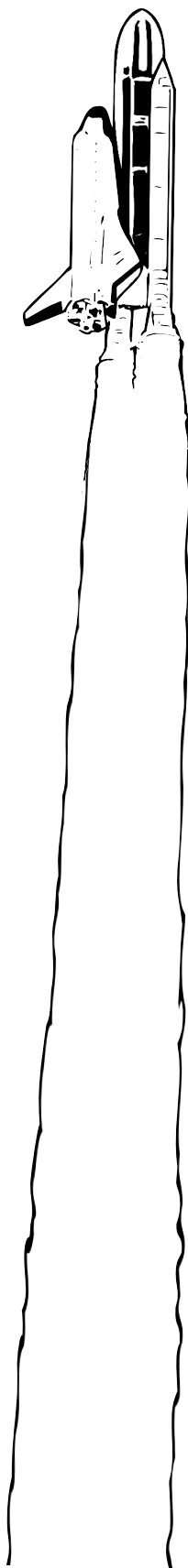
### **Social Studies**

- In small groups, partners or individually have students create a timeline following the “Woman’s Work Timeline” activity sheet.

## Day 10

### **Language Arts**

- Have the students in small groups complete the “Beyond” activity “Commander Collins Thrills a Nation”.



### **Mathematics**

- Glide Slope Activity Session #7

### **Science**

- Teacher's choice

### **Social Studies**

- In small groups, partners or individually have students complete their timelines following the "Woman's Work Timeline" activity sheet.
- Have students turn in their "I'm a Weekly Goal Setter" activity sheet and discuss with them how they fared on this assignment.

